

## THRESHOLD COMPLIANCE STATEMENT

FOR THE ASSESSMENT DATE, 31 MARCH 2007

*Pursuant to the Commerce Act*

*(Electricity Distribution Thresholds) Notice 2004*

*and the Amendment Notice 2006*

22 May 2007.

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# 1. Disclosure of Information Required (Clause 7(1)(a)(i) – The Price Path Threshold)

Northpower Limited complies with all requirements of the price path threshold at the 31 March 2007 assessment date, as specified in the Commerce Act (Electricity Distribution Thresholds) Notice 2004 and the Amendment Notice 2006.

## Commerce Act (Electricity Distribution Thresholds) Notice 2004 and Amendment Notice 2006

### Assessment Against the Price Path Threshold for the Assessment Date 31 March 2007

**Clause 5 (1) (a)** The Notional Revenue of a distribution business at each assessment date (calculated in accordance with the numerator of the left-hand side of the following expression) is not to exceed the Allowable Notional Revenue of the distribution business under the CPI-X price path at that assessment date (calculated in accordance with the denominator of the right-hand side of the following expression):

<b>Test:</b>	$\frac{NR_{2007}}{R_{2007}}$	$\leq 1$
<b>Result:</b>	\$25,342,339 / \$27,767,381	< 1
<b>Result:</b>	0.9127	< 1
<b>Result:</b>	Threshold is not breached	

**Clause 5 (1) (b)** The notional revenue of a distribution business at any time during an assessment period is not to exceed the greater of the Allowable Notional Revenue of the distribution business at the assessment date on which that assessment period ends and the Allowable Notional Revenue of the distribution business at the previous assessment date under this clause (or, if the previous assessment date is the reference date, under clause 5 of the initial notice).

<b>Test:</b>	$\frac{NR_{Max}}{Max(R_{2006}, R_{2007})}$	$\leq 1$
<b>Result:</b>	\$25,373,144 / \$27,767,381	< 1
<b>Result:</b>	0.9138	< 1
<b>Result:</b>	Threshold is not breached	

Supporting evidence is presented in Appendices A, B and D.

In accordance with the Gazette Notice, the following sources of revenue have been included in the calculation of notional revenue:

1. Income from sale of electricity conveyance services to electricity retailers and customers.
2. Revenue from connection, disconnection and reconnection services.

### **Excluded Services:**

In accordance with the Gazette Notice the following sources of revenue have been excluded from the calculation of notional revenue:

1. Revenue from external contracting work as this is derived from contestable activities performed for other lines businesses in New Zealand and overseas.
2. The value of assets vested in the network by Northpower's customers.
3. Interest received and sundry income from rent and sale of scrap, as revenue from these sources is not related to conveyance of electricity.

### **Pass Through Costs:**

In accordance with the Gazette Notice, the following components of transmission charges have been included in pass through costs:

- Connection charges
- Interconnection charges
- New investment charges
- EVA adjustments

In the First Compliance Statement, Loss Rental Rebates were not excluded from the Notional revenue calculation because the process followed for the pass through of Loss Rental Rebates did not provide the level of transparency required by the Gazette Notice. For the Second Assessment, the process was altered to provide the level of transparency required. The same

applies for the assessment dated 31 March 2007. The result is that Loss Rental Rebates are excluded from the Notional Revenue calculations at the assessment dated 31 March 2007.

Electricity Commission levy and local body rates applying to system fixed assets: lines, cables, equipment, substation land and substation buildings, have also been passed through in accordance with the Gazette Notice.

The Transpower interim rebate has been passed through to customers and electricity retailers in its entirety. The Transpower interim rebate is therefore excluded from the Notional Revenue calculations of the assessment dated 31 March 2007.

## 2. Disclosure of Information Required (Clause 7(1)(a)(ii) – The Quality Threshold)

Northpower Limited complies with all requirements of the quality threshold at the 31 March 2007 assessment date, as specified in the Commerce Act (Electricity Distribution Thresholds) Notice 2004 and the Amendment Notice 2006.

### Commerce Act (Electricity Distribution Thresholds) Notice 2004 and Amendment Notice 2006

#### Assessment Against the Quality Threshold for the Assessment Date 31 March 2007

##### Clause 6 (1) (a) Interruption Duration (Class B&C)

<b>Test:</b>	$SAIDI_{2007} \leq \left( \frac{SAIDI_{1999} + SAIDI_{2000} + SAIDI_{2001} + SAIDI_{2002} + SAIDI_{2003}}{5} \right)$		
<b>Result:</b>	139.91	<	169.18
<b>Result:</b>	SAIDI does not breach the threshold		

##### Clause 6 (1) (b) Interruption Frequency (Class B&C)

<b>Test:</b>	$SAIFI_{2007} \leq \left( \frac{SAIFI_{1999} + SAIFI_{2000} + SAIFI_{2001} + SAIFI_{2002} + SAIFI_{2003}}{5} \right)$		
<b>Result:</b>	2.58	<	3.35
<b>Result:</b>	SAIFI does not breach the threshold		

Supporting evidence is presented in Appendix C.

### **3. Disclosure of Interruption Statistical Information (Clause 7(1)(a) (iii) – SAIDI and SAIFI)**

The basis for producing the information relies on ICP quantities and outage durations. Instructions for Control Room Operators to carry out the tasks necessary to ultimately produce the information required, are contained in the Operations Manual.

Databases provide the ICP information for each distribution substation. This enables the number of ICPs in each distribution line segment (and indeed each distribution feeder, zone substation, grid exit point etc) to be determined. Folders containing hard copy schematics of each distribution feeder with this ICP quantity information, are kept in the Control Room.

The Control Room is fully operational 24 hours each day and the Operator, with assistance from the SCADA system, logs the outage duration(s) for each line segment for each interruption.

The duration and ICP information for each interruption is manually entered into a “Faults” computer program by the operator, along with other relevant information (e.g. time and cause of interruption). This “Faults” program then provides daily, weekly, monthly and annual reports containing details and summaries of all outages.

In addition to daily checks on interruption data accuracy, before the disclosure information is finalised for each year, a number of checks are carried out on the interruption information in a serious effort to identify any further human error associated with data collection and data entry.

Clause 6 (1) (c) Customer Communication

**Commerce Act (Electricity Distribution Thresholds) Notice 2004**

**and Amendment Notice 2006**

**Pursuant to Sections 57G and 57T of the Commerce Act 1986**

**Northpower advised its customers of the price–quality trade off in 2006 and will engage with customers again on this issue before 31 March 2008 as required by Clause 6 1 (c) of the regulations.**

*Disclaimer*

*The information presented in this Threshold Compliance Statement has been prepared solely for the purpose of complying with the requirements of the Commerce Act (Electricity Distribution Thresholds) Notice 2004 and the Amendment Notice 2006. This statement has not been prepared for any other purpose and Northpower expressly disclaims any liability to any other party who may rely on this statement for any other purpose.*

## 4. Certification of Threshold Compliance Statement

We, Robert Lindsay Steed and Nicole Peta Davies–Colley, being directors of Northpower Limited, certify that, having made all reasonable enquiry, to the best of our knowledge and belief, the attached threshold compliance statement of Northpower Limited and related information, prepared for the purposes of the Commerce Act (Electricity Lines Thresholds) Notice 2004 complies with the requirements of that notice.

ROBERT LINDSAY STEED

NICOLE PETA DAVIES–COLLEY

22 May 2007

## Appendix A

Notional Revenue at Assessment Date 31 March 2007.

### Commerce Act (Electricity Distribution Thresholds) Notice 2004 and Amendment Notice 2006 Price Path Inputs and Calculations for the Assessment Date 31 March 2007

#### Clause 5 (1) (a)

$NR_{2007}$

Notional Revenue for the year ending 31 March 2007		
Term	Description	(\$)
$\sum P_{i,2007} Q_i$	Prices at 31 March 2007 multiplied by 31 March 2003 Base Quantities	37,540,953
$K_{2007}$	Transmission Charges for year ending 31 March 2007	12,069,622
	Rates for year ending 31 March 2007	30,766
	Electricity Commission Levies for year ending 31 March 2007	98,226
$NR_{2007} = \sum P_{i,2007} Q_i - K_{2007}$	Notional Revenue for the year ending 31 March 2007	25,342,339

$R_{2004}$

Maximum Notional Revenue at the reference date which would not have caused the distribution business to breach the price path under the Initial Notice		
Term	Description	(\$)
$\sum P_{i,0} x Q_{i,0}$	Prices at 6 September 2003 multiplied by 31 March 2003 Base Quantities	33,899,627
$C_{T2003}$	Budget Transmission Charges for year ending 31 March 2004	9,135,429
$C_{R2003}$	Budget Rates for year ending 31 March 2004	26,000
$R_{2004}$	Maximum Revenue at 31 March 2004 that would not have caused a breach under the Initial Notice	24,738,198

Note: All notation in the table above except  $R_{2004}$  comes from the Initial Notice.

**Test for 5 (1) (a) - ( $NR_{2007} / R_{2007} \leq 1$ )**

Allowable Notional Revenue under CPI -X price path		
Term	Description	(\$)
$X$	X Factor	-1%
$R_{2004}$	Maximum Revenue at 31 March 2004 that would not have caused a breach under the Initial Notice	24,738,198
$(1 + \Delta CPI_{2005})$	Average change in Consumer Price Index over 2004	1.0229
$(1 - X)$	1-X Factor	1.01
$R_{2005}$	Allowable Notional Revenue under the CPI-X Price Path for the year ended 31 March 2005	25,557,812
$(1 + \Delta CPI_{2006})$	Average change in Consumer Price Index over 2005	1.0304
$(1 - X)$	1-X Factor	1.01
$R_{2006}$	Allowable Notional Revenue under the CPI-X Price Path for the year ended 31 March 2006	26,597,348
$(1 + \Delta CPI_{2007})$	Average change in Consumer Price Index over 2006	1.0337
$(1 - X)$	1-X Factor	1.01
$R_{2007}$	Allowable Notional Revenue under the CPI-X Price Path for the year ended 31 March 2007	27,767,381
$NR_{2007} / R_{2007}$	Expression must be less than or equal to 1 to avoid breaching 5(1)(a)	0.9127
$R_{2007} - NR_{2007}$	Value of Compliance or (Breach)	2,425,042

For presentation purposes, the CPI Index has been presented to four decimal places, however, for the calculation of  $R_{2007}$ , the full index (with no rounding) has been applied.

<i>ΔCPI<sub>2005</sub></i>			
Numerator		Denominator	
<i>CPI<sub>Q1,2004</sub></i>	928	<i>CPI<sub>Q1,2003</sub></i>	913
<i>CPI<sub>Q2,2004</sub></i>	935	<i>CPI<sub>Q2,2003</sub></i>	913
<i>CPI<sub>Q3,2004</sub></i>	941	<i>CPI<sub>Q3,2003</sub></i>	918
<i>CPI<sub>Q4,2004</sub></i>	949	<i>CPI<sub>Q4,2003</sub></i>	924
Total	3753	Total	3669
<i>ΔCPI<sub>2005</sub></i>	2.29%		

Source: Statistics New Zealand All Groups SE9A Index (Note this index was rebased to June 2006 -Consumers Price Index Review information paper published on 28 September 2006. The 2006 September quarter CPI was the first index published using the new base)

<i>ΔCPI<sub>2006</sub></i>			
Numerator		Denominator	
<i>CPI<sub>Q1,2005</sub></i>	953	<i>CPI<sub>Q1,2004</sub></i>	928
<i>CPI<sub>Q2,2005</sub></i>	962	<i>CPI<sub>Q2,2004</sub></i>	935
<i>CPI<sub>Q3,2005</sub></i>	973	<i>CPI<sub>Q3,2004</sub></i>	941
<i>CPI<sub>Q4,2005</sub></i>	979	<i>CPI<sub>Q4,2004</sub></i>	949
Total	3867	Total	3753
<i>ΔCPI<sub>2006</sub></i>	3.04%		

Source: Statistics New Zealand All Groups SE9A Index (Note this index was rebased to June 2006 -Consumers Price Index Review information paper published on 28 September 2006. The 2006 September quarter CPI was the first index published using the new base)

<i>ΔCPI<sub>2007</sub></i>			
Numerator		Denominator	
<i>CPI<sub>Q1,2006</sub></i>	985	<i>CPI<sub>Q1,2005</sub></i>	953
<i>CPI<sub>Q2,2006</sub></i>	1000	<i>CPI<sub>Q2,2005</sub></i>	962
<i>CPI<sub>Q3,2006</sub></i>	1007	<i>CPI<sub>Q3,2005</sub></i>	973
<i>CPI<sub>Q4,2006</sub></i>	1005	<i>CPI<sub>Q4,2005</sub></i>	979
Total	3997	Total	3867
<i>ΔCPI<sub>2007</sub></i>	3.37%		

Source: Statistics New Zealand All Groups SE9A Index (Note this index was rebased to June 2006 -Consumers Price Index Review information paper published on 28 September 2006. The 2006 September quarter CPI was the first index published using the new base)

## Appendix B

### Clause 5 (1) (b)

$NR_{Max}$

Maximum Notional Revenue for the period 1 April 2006 to 31 March 2007. P x Q using 31 March 2007 Prices and 31 March 2003 Base Quantities if there has been no change in prices over this period, otherwise the prices which generate the maximum notional revenue over the period when using 31 March 2003 quantities		
Term	Description	(\$)
$\Sigma P_{Max} Q_i$	Maximum Price Between 1 April 2006 and 31 March 2007 multiplied by 31 March 2003 Base Quantities	37,571,758
$K_{2007}$	Transmission Charges for year ending 31 March 2007	12,069,622
	Rates Charges for year ending 31 March 2007	30,766
	Electricity Commission Levies for year ending 31 March 2007	98,226
$NR_{Max}$	Maximum Notional Revenue for 1 April 2006 to 31 March 2007	25,373,144

**Test for 5 (1) (b) -  $(NR_{Max} / \text{Max}(R_{2006}, R_{2007})) \leq 1$**

Notional Revenue during the period is not to exceed the maximum of the Allowable Notional Revenue at the end of the assessment period and the Allowable Notional Revenue at the end of the previous assessment period		
Term	Description	(\$)
$NR_{Max}$	Maximum Notional Revenue for 1 April 2006 to 31 March 2007	25,373,144
$R_{2006}$	Allowable Notional Revenue at 31 March 2006	26,597,348
$R_{2007}$	Allowable Notional Revenue at 31 March 2007	27,767,381
$\text{Max}(R_{2006}, R_{2007})$	Maximum of the Allowable Notional Revenue at 31 March 2006 and the Allowable Notional Revenue at 31 March 2007	27,767,381
$NR_{Max} / \text{Max}(R_{2006}, R_{2007})$	If expression is greater than 1, Clause 5 (1) (b) is breached	0.9138
$\text{Max}(R_{2006}, R_{2007}) - NR_{Max}$	Value of Compliance or (Breach)	2,394,237

## Appendix C

### Commerce Act (Electricity Distribution Thresholds) Notice 2004 and Amendment Notice 2006

#### Quality Inputs and Calculations for the Assessment Date 31 March 2007

Year	SAIDI (Interruption Duration)			SAIFI (Interruption Frequency)		
	Class B	Class C	Total	Class B	Class C	Total
1999	58.22	158.48	216.70	0.46	4.28	4.74
2000	31.73	77.24	108.97	0.23	1.85	2.08
2001	29.50	129.63	159.13	0.22	3.05	3.27
2002	53.53	135.09	188.62	0.37	2.49	2.86
2003	31.96	140.53	172.49	0.21	3.57	3.78
	<b>Five Year Average SAIDI</b>		<b>169.18</b>	<b>Five Year Average SAIFI</b>		<b>3.35</b>
2007	29.73	110.18	139.91	0.16	2.42	2.58

Maximum revenue between 1 April 2006 and 31 March 2007		$\Sigma P_{MAX} Q_i$		Prices 1 April 2006 to 31 March 2007																			
Number of Months		12																					
Number of Days:		365																					
Tariff or Fee	Description	Number of ICPs at 31/03/03	kWh or kw or kvarh for 31/03/03	kVA for 31/03/03	kVAr	Other Qty for 31/03/03	Transmission Tariff					Distribution Charges					Other Fees/Charges Non Conveyance (Multiply by quantities as appropriate)	Notional Transmission Revenue (\$)	Notional Distribution Revenue (\$)		Notional Other Revenue (\$)	Total Revenue (\$)	
							Fixed			Variable		Fixed			Variable				Fixed	Variable			
							\$/day	c/kVA/day	Other	c/kVArh	Other	c/kWh	\$/day	c/kVA/day	Other	c/kVArh							c/kWh
$P_{1,2007} Q_{i,0}$																							
<b>Non ToU Retail</b>																							
2	Household 24 Hr	33359	151,160,148								2.25	0.21					5.30	3,401,103	2,556,967	8,011,488	-	13,969,559	
5	Priority Control		26,774,038								1.03						3.07	275,773	-	821,963	-	1,097,736	
6	Standard Control		73,395,959								0.93						2.42	682,582	-	1,776,182	-	2,458,765	
7	Night Rate		3,210,949								0.21						0.64	6,743	-	20,550	-	27,293	
11	Controlled * Day	88	892,707								1.03	0.26					3.77	9,195	8,351	33,655	-	51,201	
12	Controlled * Night		1,460,685								0.21						2.29	3,067	-	33,450	-	36,517	
17	Night Rate Boost		719,679								0.26						2.79	1,871	-	20,079	-	21,950	
19	Metered Lighting		41,733								2.25						4.35	939	-	1,815	-	2,754	
32	Large Comm. 24 Hr	72	10,407,529								3.00	2.50					5.30	234,169	65,700	551,599	-	851,468	
33	Comm. 24 Hr Use	9779	80,663,155								2.25	0.26					6.30	1,814,921	928,027	5,081,779	-	7,824,727	
34	School Day	44	2,260,667								2.25	0.26					6.30	50,865	4,176	142,422	-	197,463	
35	School Night		1,162,640								0.21						2.29	2,442	-	26,624	-	29,066	
71	Hsehold Use(City)	4349	26,765,169								1.75	0.21					4.35	468,390	333,351	1,164,285	-	1,966,026	
<b>Unmetered</b>																							
24	Unmetered Dusk to Dawn	5593	2,953,097			1095					2.25	0.05					4.35	66,445	102,072	128,460	-	296,977	
25	Unmetered 24 Hr	153	134,362			365					2.25	0.20					6.30	3,023	11,169	8,465	-	22,657	
<b>ToU Retail</b>																							
5	Priority Control (now T31)		114,302								3.00	2.25	2.44				5.30	2,572	-	6,058	-	8,630	
7	Night Rate (now T31)		25,461								3.00	2.25	2.44				5.30	573	-	1,349	-	1,922	
32	Large Comm. 24 Hr (now T31)	40	10,276,471				1,813,558				3.00	2.25	2.44				5.30	285,627	35,624	544,653	-	865,904	
32	Meter Rental	15																29.00	-	-	5,220	-	5,220
32	Meter Rebate (credit)	35																-	-	-	-	-	-
32	Remote Access	10																20.00	-	-	2,400	-	2,400
33	Comm. 24 Hr Use (now T31)	13	1,524,232								3.00	2.25	2.44				5.30	34,295	11,578	80,784	-	126,657	
38	Night Shift-Day																	-	-	-	-	-	-
39	Night Shift-Night																	-	-	-	-	-	-
<b>Major Customers</b>																							
NS1	Zone 1 Reactive Support		235,248,348															-	-	-	-	-	-
	Frequency Support		235,248,348															-	-	-	-	-	-
	Connection					1		373,416										373,416					373,416
	Interconnection					334169				543.300								1,815,540					1,815,540
	Reactive Capacity					1		123,705										123,705					123,705
	Reactive Penalty					1250				230.00													2,875
	EVA Charge					1		-202,368										-202,368					-202,368
	Black Start					1																	
	Residual Reactive					1		-7,503										-7,503					-7,503
	Electricity Commission Levy		235,248,348									0.00560						13,174					13,174
	Line Charge	1																	582,679				582,679
	Transmission Administration					1																	
	Incentive Charge					1																	
NS2	Zone 1 Reactive Support		16,569,399															-	-	-	-	-	-
	Frequency Support		16,569,399															-	-	-	-	-	-
	Connection					1		35,196										35,196					35,196
	Interconnection					34027				543.300								184,869					184,869
	Reactive Capacity					1		13,053										13,053					13,053
	Reactive Penalty					1																	
	EVA Charge					1		-20,371										-20,371					-20,371
	Black Start					1																	
	Residual Reactive					1		-792										-792					-792
	Electricity Commission Levy		16,569,399									0.00510						845					845
	Line Charge	1																					
	Transmission Administration					1													4,664				4,664
	Project Cost Recovery 1					1													216,711				216,711
	Project Cost Recovery 2					1													134,797				134,797
NS3	Zone 1 Reactive Support		52,970,280															-	-	-	-	-	-
	Frequency Support		52,970,280															-	-	-	-	-	-
	Connection					1		73,944										73,944					73,944
	Interconnection					74495				543.300								404,731					404,731
	Reactive Capacity					1		32,080										32,080					32,080
	Reactive Penalty					1				230.00								13,402					13,402
	EVA Charge					1		-36,691										-36,691					-36,691
	Black Start					1																	
	Residual Reactive					1		-1,946										-1,946					-1,946
	Electricity Commission Levy		52,970,280									0.00510						2,701					2,701
	Line Charge	1																	186,000				186,000
	Transmission Administration					1													6,874				6,874
NS4	Zone 1 Reactive Support		21,178,477															-	-	-	-	-	-
	Frequency Support		21,178,477															-	-	-	-	-	-
	Connection					1		107,136										107,136					107,136
	Interconnection					48354				543.300								262,707					262,707
	Reactive Capacity					1		16,544										16,544					16,544
	Reactive Penalty					1				230.00								2,847					2,847
	EVA Charge					1		-31,348										-31,348					-31,348





